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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/644,993	08/21/2003	Jackson Chang	0941-0815P	7091
2292 7590 11/05/2007 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			EXAMINER SHENG, TOM V	
			ART UNIT	PAPER NUMBER
			2629	
			NOTIFICATION DATE	DELIVERY MODE
			11/05/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No. 10/644,993	Applicant(s) CHANG ET AL.	
	Examiner Tom V. Sheng	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-10, 13, 14, 16, 17, 19-22 and 26-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7-10, 13, 14, 16, 17, 19, 20, 22, 26-32 and 34 is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 6, 21 and 33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3 and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Sternglass et al. (US 5,995,025).

As for claim 1, Sternglass teaches an electronic device (portable computer 12; fig. 1A-1C), comprising:

a body (the portable computer 12 as shown) comprising a main seat (central keyboard assembly 14; column 5, lines 27-28) and a pivotal seat (pivotal connection formed by parts 78 and 84 and a pivot pin along the axis A-A; column 7, lines 1-21);

a display unit (display 92) disposed on the body (within top panel 90); and

an index unit (left keyboard assembly 22) received in the main seat of the body (as shown in fig. 1B), having

a connecting end (inherent) coupled to the pivotal seat of the body (as analyzed above),

a first index port (keypad 210; fig. 1B) and

a second index port (keys 34 on left keyboard assembly 22; fig. 1C),

moving between a first mode (as a phone) to expose the first index port (keypad) and a second mode (as a keyboard) to expose the second index port (keys 34 and all other keyboard keys),

Art Unit: 2629

wherein the connecting end of the index unit is limited by the pivotal seat of the body when the index unit is moved between the first mode and the second mode (the keyboard assembly 22 can only be basically rotated along axis A-A), and the index unit received in the main seat of the body is enclosed by the body (fig. 1A shows both left and right keyboard assemblies enclosed by the body in a closed position). See also column 5, lines 9-35.

As for claims 2 and 3, Sternglass teaches wherein the index unit/ports is electronically connected to the display unit (column 5, line 55 through column 6, line 1).

As for claim 33, the fact that the left and right keyboard assemblies being enclosed by the body in a closed position indicates the central keyboard assembly forms the main seat and provides a recess for the left and right keyboard assemblies.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sternglass as applied to claim 1 above, and further in view of Yamauchi et al. (US 7,142,270 B2), hereinafter Yamauchi.

As for claim 5, Sternglass teaches a display unit 92 on the inside of the top panel 90. However, Sternglass does not teach a display unit disposed on a second panel such as the outside of the top panel.

Yamauchi teaches a liquid crystal display device that is thin and capable of displaying both on the front-side and the back-side. One of ordinary skill in the art would recognize that Yamauchi's display device is usable in place of Sternglass' portable computer. It would have been obvious to provide this arrangement because this facilitates convenient viewing during a team meeting.

As for claim 6, the display unit as taught by Yamauchi is a liquid crystal display (fig. 2).

5. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sternglass as applied to claim 1 above, and further in view of Hsu et al. (US 6,924,788 B2).

As for claim 21, Sternglass further teaches that the left keyboard assembly 22 (also called segment 18; fig. 1E) requires sliding into contact when used as a keyboard (column 7, lines 45-49). Thus, Sternglass does not teach wherein the connecting end of the index unit does not slide with respect to the body when the index unit is moved between the first mode and the second mode.

Hsu also teaches a folding keyboard (fig. 1). In particular, Hsu's keyboard utilizes an intermediate section (e.g. 15) in combination with a fixed hinge and a movable hinge 45 to facilitate the folding and unfolding of a keyboard section (e.g. 16).

Art Unit: 2629

See fig. 2, 4, 5 and column 2, lines 42-57. One of ordinary skill in the art would recognize that such folding mechanism does not require sliding action of Sternglass' keyboard assemblies and that contacts for signals do not need to be separated and re-connected with each fold/unfold action.

Therefore, it would have been obvious to modify Sternglass' keyboard assemblies based on the teaching of Hsu, resulting in a more robust keyboard mechanism.

Allowable Subject Matter

6. Claims 7-10, 13, 14, 16, 17, 19, 20, 22, 26-32 and 34 are allowed.

7. The following is a statement of reasons for the indication of allowable subject matter: none of the prior art of record teaches the limitations, "an index unit received in the main seat of the first element ... with at least two degrees of freedom ... the index unit received in the main seat of the first element is enclosed by the first element and the second element" of claim 7, "a first element ... first axis ... second axis ... third axis" of claim 14, and "a first element ... first axis ... second axis ... third axis ..." of claim 27.

Response to Arguments

8. Applicant's arguments with respect to claims 1-3, 5, 6, 21 and 33 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Art Unit: 2629

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom V. Sheng whose telephone number is (571) 272-7684. The examiner can normally be reached on 9:00am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2629

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Tom Sheng

AMR A. AWAD
SUPERVISORY PATENT EXAMINER
